

Tisbury Rural Sanitary Authority.

REPORT FOR THE YEAR 1906.

Acreage—

42052

Population (1901 Census)—

7714.

To the Chairman and Sanitary Board.

GENTLEMEN—

I beg to present my sixth Annual Report as Medical Officer of Health for your District.

Birth Rate.

During the year 177 births were registered, a decrease upon last year's figures of 18 and a number considerably below the yearly average for the past decade.

Subjoined is a table giving details relating to the several component registration areas.

	PCPULATION.	BIRTHS.	BOYS.	GIRLS.	RATE PER 1000 POPULATION.
DONHEAD	3053	65	30	35	21'2
TISBURY	2947	72	40	32	24'4
HINDON	1714	40	21	19	23'3
WHOLE DISTRICT	7714	177	91	86	22'9
Average past 10 years	8159	189			23'2

The figures for the year are by no means satisfactory, being somewhat more than 2 per 1000 less than the corresponding rates for rural districts in the county. I have gone into the birth rates of the locality for the past 30 years and find that there has been a steady, though slight decrease during that period.

TEN YEARS ENDING.	BIRTH RATE PER 1000 POPULATION.
1885	27'7
1895	25'1
1905	23'0
1906	22'9

Five of the births during the year were illegitimate.

Infantile Mortality.

The proportion of deaths of children under one year of age to the number of births has always been comparatively low in your District. The returns for the year show that of the 177 children born, 11 died, giving a mortality per 1000 births of 62'1—a very favourable rate compared with the average for rural districts generally. The plan adopted by your Council nearly two years ago, of giving printed instructions regarding the care of infants to each parent or responsible person at the time of registration is appreciated and it is now less common to see puny infants taking unsuitable nourishment from dirty bottles. The efforts that are being made by the Health Authorities as well as by private individuals who are interested in this question of infant feeding and management will, I am very hopeful, have their ultimate effect, not only in reducing the number of deaths amongst the newly born from preventible causes to a minimum, but also in preserving a greater number of well nourished children to lessen the adverse influence of a diminishing birth rate.

Death Rate.

In spite of the fact that during the year the incidence of sickness in the District was remarkably slight, exactly the same number of deaths occurred as in 1905. This apparent anomaly is explained by the large proportion of deaths amongst those who had reached advanced age, and who, in the ordinary course of events, could hardly be expected to attain greater years. Of the 110 persons who died 53, or nearly half the total number, were over 70 years of age, whilst of these 21 were upwards of 80 years.

	MALES.	FEMALES.	TOTALS.	RATE PER 1000.
DONHEAD	21	21	42	13'8
TISBURY	24	20	44	14'9
HINDON	14	10	24	14'0
WHOLE DISTRICT	59	51	110	14'2

The returns do not call for any critical analysis of the causes of death. As is usual in this neighbourhood Heart Diseases and Decay of Nature are responsible for a large proportion, viz.—18 and 19 respectively. As to the possible cause of the relative frequency of heart lesions I have often wondered whether the early age at which many of those who have been and are affected commenced work, combined with the hilly nature of the country, may not have thrown an undue strain upon a still undeveloped organ, which strain has had to be met by a compensating and premature enlargement of the structure. I have specially noticed the frequency with which a simple enlarged heart is found in young and otherwise healthy boys when presenting themselves for examination before joining one or other of the Friendly Societies, and it is not unreasonable to infer that their predecessors, at the same ages and under more strenuous circumstances, have had similar, if not more, marked abnormal conditions of their hearts which in later life developed into definite disease.

In calculating the death rate no allowance has been made for residents who have been taken out of the District on account of illness, and who may have died elsewhere. No returns of these are available, but the number is probably so small that such correction would make but a fractional difference in the result.

Infectious Diseases.

The year has been marked by an almost complete immunity from Infectious Diseases. Measles, Puerperal Fever and Diphtheria are represented in the returns by one case each; Scarlet Fever and Phthisis by eight and six respectively. Of these, the Measles, Diphtheria and one Scarlet Fever case were undoubtedly imported from outside the District. Not a single instance of any of the remaining scheduled diseases has come to the notice of the Sanitary Authority.

During the year Phthisis and Measles have been made notifiable in your District, notification of the former being voluntary, and of the latter compulsory for three years. Hitherto only a rough estimate of the number of cases of Phthisis at any time existing in the locality could be obtained, and then only by casual information. It is hoped that this new departure may result in the Authority getting into touch with every case of the disease in the District, and that, by the provision of information regarding the nature and methods of exclusion of the malady, the patients and those in contact with them may be induced to exercise the precautions which are so necessary in infectious conditions. The average number of notifications received during the past five years is 17, so that, making allowance for the two newly included diseases, the figures for 1906 are satisfactory. More detailed accounts are given below under special headings.

Scarlet Fever.

DATE OF NOTIFICATION.	LOCALITY.	NUMBER OF CASES.
March 6th	Church St., Wardour	1
March 11th	Hindon	1
April 21st	Semley	5 (in one house)
December 1st	Kinghay	1 (imported)
TOTAL		8

From this table it will be seen that for a period of over eight months no case of Scarlatina came under observation. The first instances of the disease occurred in March at Church Street, Wardour, and owing to the wilful disregard by the child's parents of the instructions given, it was necessary to prosecute under Sect. 126, Public Health Act, for exposing the patient whilst in an infectious state. A conviction was obtained. With regard to the Semley cases it is most probable that they were infected by a child who was noticed to be peeling, but no history of illness, sore throat or rash could be obtained. On December 1st I was informed that a child at Kinghay was ill with Scarlet Fever. The patient attended school at East Knoyle on November 27th, on which date the school was closed as there were at that time several cases of Scarlet Fever in the village. It is therefore practically certain that the child became affected outside your District. No extension took place, although there were five other children in the house and complete isolation was out of the question. With the exception of the Semley group, where the infection was transmitted from the first child to four other members of the family, no extension took place from the original cases, in spite of the fact that in each house in which the disease appeared there were other children unprotected by a previous attack.

The influences which govern the spread of Scarlet Fever are not easy to determine. In the cases under discussion we have four distinct centres of infection, at each centre the surroundings were identical, isolation was impossible and accommodation limited, at each there were several other children of susceptible ages, and all must have been exposed to the poison for several weeks, and yet in only one instance, at Semley, did any extension take place.

Measles.

Since the inclusion of Measles amongst the scheduled diseases only one case has been notified. The patient returned home for the holiday from an infected area during the incubation stage and must therefore be regarded as an imported instance.

Diphtheria.

The single example of Diphtheria to be recorded occurred in Church Street, Wardour, on January 11th. The illness was contracted a few days previously, at Portsmouth, and ended fatally, from heart failure.

Phthisis.

The inclusion of Phthisis amongst the diseases which may be notified has, up to the present, resulted in only six cases coming to our knowledge. This probably does not represent the true number of cases existing, and it is hoped that fuller advantage will be taken of the benefits which notification offers. The deaths from the disease during the year number six, which is the exact average for the last 15 years, so that it would appear that little improvement in this respect has taken place. The Phthisis mortality is .77 per 1000 population for the year.

Cancer.

There were eight deaths from cancer, equal to a death rate from this cause of 1.35 per 1000.

Sewerage & Drainage.

The system of sewage disposal at Hindon has for some time past been open to objection. In the village there are a few midden privies and a number of pail closets, whilst the remainder of the sewage is carried to a large tank situated in a field about a quarter of a mile from the bottom of the main street. This tank is approximately two hundred yards from the nearest building. Until recently the effluent from this found its way along an open ditch towards a group of cottages 370 yards distant, the bulk of the liquid percolating into the soil, or finding its way over the field. In time, however, the soil became clogged and unequal to the task of purifying a practically crude effluent, particularly when the volume was increased and the absorptive power of the soil lessened by heavy rainfall, and complaints were received. To remedy the nuisance caused, your Sanitary Inspector carried out the following alteration, which has now been in operation for about six months with entirely satisfactory results. The old ditch was filled up with fresh soil and a line of 6-inch agricultural pipes laid in its course,

12 inches from the surface for a distance of 150 yards. Along this line, at intervals of 26 yards, are four brick chambers, each of which is connected with a spray 40 yards long. These sprays consist of lines of 4-inch agricultural pipes, coming away from the chambers at an obtuse angle, and are laid 10 to 12 inches below the surface with a fall of six inches. The flow of effluent through them is controlled by sluices placed between them and the chambers, so that the carriers can be used alternately. At the far end of each is a filter 5ft x 4ft x 3ft, which receives any excess of liquid after its passage through the spray. The resulting deodorised effluent discharges into a trench below the outfall and becomes absorbed. I am very hopeful that this arrangement will permanently remedy an old standing difficulty. It is unlikely that there will, for many years, be any great increase in the volume of sewage to be dealt with, and should this occur, the system can be easily extended by increasing the number of sprays, as the area of land available is amply sufficient for the treatment of a far larger quantity than the present amount. The whole of the work has been done at the small total cost to the ratepayers of less than £15.

The question of sewage disposal at Tisbury is one of some difficulty owing to the limited area of land at present available and the low level at which it is situated. The two chief defects at present existing are: (1)—Pollution of the stream by an impure effluent. (2)—Foul effluent from the collecting tank. During east winds and especially in hot weather, when decomposition is rapid, the foul emanations are unpleasantly obvious over the lower part of the town. That this is a menace to health is a matter open to question, but it will not be denied that its mitigation would be welcomed by many who are compelled to breathe an atmosphere, which if not actually unhealthy, is certainly offensive. At present, the crude sewage passes through a chamber in which the bulk of the solids are precipitated untreated; the liquid portion and some solids then pass through the filter bed, from which the effluent discharges directly into the stream. This arrangement can, I think, be greatly improved at comparatively small cost by the provision of a second filter bed, so that the two can be used alternately, and by carrying the effluent from these across the stream and there dealing with it by land filtration before allowing it to discharge itself some distance below. The river pollution would then be reduced to a minimum both as regards quantity and quality of the effluent. I am not at present in possession of sufficient data regarding levels, but believe that the provision of a pumping station will not be necessary. Your Inspector is preparing a plan of the suggested alteration, which will shortly be laid before you.

The work of laying new, and relaying old drains where this appears necessary, is being proceeded with under the supervision of Mr. Davies. I am glad to be able to report that the improvement in the drainage of Tisbury and of some portions of the District is very marked, and where new work has been undertaken it has been brought into line with modern requirements. I would particularly mention in this connection the improvement which has been effected in the drainage of two rows of houses in High Street, Wardour. The old drains had been a constant source of trouble and annoyance, smells were frequent, and sore throats amongst children living close by were common, whilst no provision was made for dealing with the blockages which occurred from time to time. When the work of reconstruction was commenced it was found that the traps were defective, the pipes were badly laid in mortar, the joints open and leaking, and as their line was within a few feet of the back doors of the houses they were supposed to drain, it is hardly surprising that the sewage-soaked soil became a source of annoyance and danger. The sub-soil in this situation is clay, so that the leakage was unable to find its way through the underlying rock as it would have done in a higher situation. The new arrangement provides each house with its own properly constructed inspection chamber into which waste and soil pipes lead. Each has its own air inlet, and each drain runs separately to a common inspection chamber properly intercepted and ventilated. The work has been very efficiently done. I am glad to acknowledge the ready manner with which the property owners have met the Sanitary Authority in this matter. It is not always that suggestions for the improvement of property are received and carried out so willingly as in the present instances.

Dairies & Cowsheds.

The number of persons engaged in the milk trade on the register and under inspection now numbers 158, as against 140 in 1905, and 135 in 1904.

During the past few years this question of milk production and the conditions under which it is carried on, has been the subject of much discussion and a great deal of adverse comment by those engaged in Public Health work, as well as by private individuals. Facts have been brought forward indicating that too little care is, in many instances, given to simple hygienic precautions when dealing with a food so easily contaminated and so universally used as milk, and the knowledge has engendered a feeling of unrest amongst the general public. I have in previous reports drawn attention to some of the more important directions in which an improvement was necessary, and I cordially acknowledge the ready way in which many producers in the District have accepted and acted up to the suggestions made. It is fully realised that the high standard of the idealist is, at the present time, and under existing conditions, unattainable; old cow-stalls cannot be brought up to modern requirements in every respect except at a prohibitive cost, and water supplies to all, although desirable, cannot, under present circumstances, be provided, but there is nothing unreasonable in the request that owners should see that the cows' udders are washed and the milkers' hands cleansed before milking is commenced.

Recently, Dr. Davies, the Medical Officer of Health for Woolwich, paid a visit of inspection to the neighbourhood in order to make enquiries regarding the sanitary conditions of the farms from which more than half of the milk consumed at Woolwich is sent. In an exhaustive and instructive report he goes fully into the conditions obtaining at the farms and milk depôts, and traces the milk through all its intermediary stages from the cow to the consumer. With regard to the cleanliness of the cowsheds and yards, he says: "Six sheds were noted as being in a dirty condition, and at eight farms the yard on to which the sheds opened was in a very dirty state. The milkers were observed to be wearing dirty aprons in two cases." "Many of the sheds were very satisfactory in several respects and some of them in all respects. It appeared

to me that a little more pressure on the part of Sanitary Authorities might bring their cleanliness up to the level of London cowsheds." "In the matter of open air and ventilation, the Wiltshire cowsheds are decidedly superior to those in London." In his summary he remarks—"No means are taken for protecting the milk from interference, adulteration, and contamination in transit, and no satisfactory means are adopted for keeping it cool." "The conditions of most of the farms are satisfactory as regards quantity of water supplied, lighting, ventilation, and cubic space of cowsheds, and general open air treatment of the cows." "As regards cleanliness of sheds and farmyards and paving of sheds, several farms leave much to be desired." "The companies' depôts are on the whole very unsatisfactory, and some of the employées show a melancholy want of knowledge of the scientific principles of their trade."

So far as the conditions obtaining in this District are concerned, I am satisfied from personal observation, that marked improvement has taken place. In connection with the 158 premises on the register, it was only necessary to deal with 11 contraventions of the regulations.

The recently published second interim report of the Royal Commission on Tuberculosis is one which must undoubtedly have a wide influence on the milk trade of the country. It absolutely controverts the fallacious doctrine of Koch regarding the non-identity of human and bovine tuberculosis, and proves beyond all reasonable doubt that the disease in man and the lower animals is the same disease, is due to the same bacillus which is capable of transmission from one to the other, and that cow's milk is frequently the vehicle of infection.

Water Supply.

The scheme for supplying the neighbourhood with water from the Hill Ground springs has temporarily been abandoned owing to the possibility of contamination from some houses near by, and it is now proposed to utilise three strong springs which have been placed at the disposal of the Council by a neighbouring land owner. There can be no question as to the sufficiency of the quantity of water available as the springs are estimated to be capable of giving a daily flow of 150,000 gallons, and analyses have shown it to be of good quality. Should future investigations be equally favourable it would appear that this old standing and difficult question is approaching solution. Its completion will be welcomed by the inhabitants it will benefit as well as by the Authority responsible for its provision, to whom it has been an ever present problem for so many years.

One new well has been sunk during the year, two cleaned and repaired, and twenty samples of water have been taken for analysis. There are 290 houses in the District supplied from waterworks, a number rather less than one sixth of the total number inhabited.

House Accommodation.

There is little to be said under this heading. Accommodation is, speaking generally, good, but exceptions are to be found, mainly amongst the old cottages where rooms are often small and badly ventilated. New cottages are usually of good type. During the year four new houses have been erected, ten made fit for habitation, three closed, and fourteen limewashed.

Two instances of overcrowding were discovered and remedied.

Disposal of House Refuse.

A portion of an old quarry in West Tisbury has been acquired and adapted for the purpose of deposition of house refuse. The accumulation of offensive refuse is not a matter of common occurrence, but the need has been felt for some place where rubbish of all sorts can be taken. The provision of this space is found to be a convenience to householders, who freely use it.

Slaughter Houses.

The nine slaughter houses have been inspected regularly. Two of them were found in need of repair, and the defects have been remedied. I have from time to time examined many of the carcasses exposed for sale, but have not, in any instance, discovered meat that was unsuitable for food.

Factories & Workshops.

There is little to be recorded regarding Factories and Workshops, and the administration of the act of 1901 does not present any difficulties. The appended table shows that there are nine factories and sixty-five workshops and workplaces on the register. The District being almost entirely agricultural, very few manufacturing industries are carried on, and dangerous trades are not represented here. Only one outworker is returned on the lists to be sent by employers. All the places are under supervision by your Inspector and myself, and have been visited. Three defects were found and adjusted, all being of a minor character. The sanitary requirements of all the premises are observed.

I append statistical tables of births and deaths, together with a summary of the work done in the Sanitary Inspector's department, and am,

Yours obediently.

February 14th, 1907.

C. A. ENSOR, M.O.H.